

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-10 (Canceled).

Claim 11 (Currently Amended): A method of electromagnetic stirring in a secondary cooling zone of a plant for continuous casting of metal products of elongated cross section, said plant including a mold having broad and narrow faces, plant for continuous casting of metal products of elongate cross section, a mold of which is provided with a submerged casting nozzle having lateral discharge outlets directed towards narrow faces of the mold, and utilizing travelling magnetic fields generated by multiphase inductors placed near the cast metal, the method comprising:

adding liquid metal to the mold through a casting nozzle including lateral discharge outlets directed towards the narrow faces of the mold, said casting nozzle being submerged in the liquid metal; and

for promoting causing liquid metal exchange within the liquid pool metal between [[a]] the secondary cooling zone and the mold, forcibly establishing by utilizing traveling magnetic fields generated by multiphase inductors placed in front of the broad faces of the mold that cause a longitudinal metal flow in a longitudinal direction of the mold in the secondary cooling zone, the metal flow being localized in a middle region of the liquid metal east product as two opposing collinear streams, and providing that cause circulation of the liquid metal as a single four-leaf clover configuration design having two upper lobes and two lower lobes,

wherein said two upper lobes and two lower lobes extend from the middle region to the narrow faces of the mold, and the upper lobes extending extend into the mold right up to a level of jets coming out from the lateral discharge outlets of the submerged casting nozzle.

Claim 12 (Currently Amended): A stirring method according to claim 11, wherein the longitudinal opposing collinear streams in the middle region of the cast product liquid metal, which move away from each other, are created such that the two upper lobes that extend into the mold right up to the level of the jets coming out from the discharge outlets of the casting nozzle merge concurrently with the jets to reinforce the jets.

Claim 13 (Currently Amended): A stirring method according to claim 11, wherein the longitudinal opposing collinear streams in the middle region of the cast product liquid metal, which converge on each other, are created such that the two upper lobes that extend into the mold up to the level of the jets emanating from the discharge outlets of the casting nozzle are superposed counter-currently on the jets to slow the jets down.

Claim 14 (Currently Amended): A stirring method according to claim 11, wherein the a location of the metal flow in the longitudinal direction flow in the secondary cooling zone is shifted laterally towards one or other of the small sides of cast product to be closer to one of the narrow faces of the mold.

Claim 15 (Currently Amended): A stirring method according to claim 11, wherein the longitudinal metal flow in the longitudinal direction is created as the two opposing collinear streams by eollinear collinearly moving magnetic fields that travel longitudinally in the central middle region, either coming to be either closer together[[],] or further apart.

Claim 16 (Currently Amended): A stirring method according to claim 12, wherein the longitudinal metal flow in the longitudinal direction is created as the two opposing collinear streams by eollinear collinearly moving magnetic fields that travel transversely over the a

width of the ~~east product mold~~ coming closer together from an edge towards the ~~a~~ center of the ~~east product mold~~, or moving to move further apart from the center of the mold towards the edge of the ~~east product mold~~.

Claim 17 (Currently Amended): A stirring method according to claim 11, wherein the travelling magnetic fields are generated by multiphase linear inductors placed facing large faces of the ~~east product~~.

Claim 18 (Currently Amended): A stirring method according to claim 17, further comprising:

supplying wherein the multiphase linear inductors are supplied with electric currents of different intensities.

Claim 19 (Currently Amended): A stirring method according to claim 11, further comprising:

using wherein other travelling magnetic fields are also used that act directly in the mold on the jets of metal discharging from the outlets of the coming out from the discharge outlets of the submerged casting nozzle.

Claim 20 (Withdrawn and Currently Amended): A flat metal product obtained from a continuous casting plant, the secondary cooling zone of which being the location of an electromagnetic stirring operation according to that defined in the method of claim 11.